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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,711	07/03/2003	Yoshifumi Kato	5000-5109	5026

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EXAMINER	
VU, PHU	

ART UNIT	PAPER NUMBER
2871	

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/613,711	KATO ET AL.
	Examiner	Art Unit
	Phu Vu	2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-52* is/are pending in the application.

4a) Of the above claim(s) *21-32 and 41-46* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-40 and 47-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 33-40 and 47-52 have been considered but are moot in view of the new ground(s) of rejection necessitated by an amendment after filing of a Request for Continuing Examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 33-35, 38, 39, and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saurer et al US Patent No 4138195 in view of Washo et al US Patent No 4580877 in view of Piepel US Patent No 6466368.

Regarding claims 33, 34 and 47, Saurer discloses a substrate, a transparent electrode on the substrate (cover figure element 4), and electroluminescent layer located on the transparent electrode (6); a reflective electrode (8) located on the electroluminescent layer and a scattering portion (8) that scatters light, wherein the scattering portion is located between the substrate and the reflective electrode inclusive. Saurer fails to teach a passivation film located on the reflective electrode, however, Washo discloses a passivation film (moisture resistance film cov. fig. element 11) located on the reflective electrode to protect the display from moisture. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to

form a passivation layer on the reflective electrode to guard against moisture. Regarding claim 47 the reference also discloses a display (Saurer cover figure element 1) wherein the display unit displays an image using light output from the lighting unit.

The references fail to teach scattering portion located between the electroluminescent layer and the substrate inclusive or the scattering layer diffusing light before and being reflected by the reflecting layer. Piepel discloses a diffusive substrate with midrange diffusivity, that significantly reduces in speckle contrast in displays without having a significant effect on the peak gain or the viewing angle (column 13 lines 4-11). Use of a diffusing substrate would scatter light before and after being reflected by the reflective electrode. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use a diffusive substrate having the scattering portion located between the substrate and the electroluminescent layer inclusive to reduce speckle contrast.

Regarding claim 35 and 49, Saurer teaches the scattering layer as an interface between the electroluminescent layer and the reflective electrode (element 8 and see column 2 lines 1-5) as the reflective electrode functions as a scattering layer.

Regarding claim 38, the term electroluminescence by definition requires the application of voltage to generate light. Since the reference discloses an electroluminescent layer formed between two electrodes (see Saurer cover figure elements 8, 4) this limitation is met.

Regarding claim 39, since Saurer shows the entire electroluminescent (cover figure element 6) layer if formed between a reflective electrode (8) and a transparent

electrode (4) the entire electroluminescent layer will emit light upon voltage between the electrodes.

Regarding claim 48, Saurer shows a plurality of liquid crystal elements such as a liquid crystal layer and sealing members (see cover figure).

Claims 36 and 50 rejected under 35 U.S.C. 103(a) as being unpatentable over Saurer in view of Washo in view of Piepel and further in view of Savant US Patent No. 6,113,801.

Regardings claim 36 and 50, Saurer, Washo, and Piepel disclose all the limitations of the claim except scattering portion is a layer wherein scattering bodies are minute concavities and convexities. Savant discloses a light-scattering portion wherein the scattering bodies are minute concavities and convexities (see figures 1A-1F) for easy uniform replication of a diffuser independent of production scale (see column 2 lines 11-15). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use scattering bodes of minute concavities and convexities to gain an easily reproducible diffuser.

Claims 37 and 51 rejected under 35 U.S.C. 103(a) as being unpatentable over Saurer in view of Washo in view of Piepel and further in view of Iwata et al US Patent No 6480249.

Regarding claims 37 and 51, Saurer, Washo and Piepel disclose all the limitations of claim 37 except scattering portion is a layer in which scattering bodies are minute particles. Iwata discloses a light diffusing film with scattering bodies (resin beads) are added to a light transmissive resin that inhibits scattering reflection which

causes displays to be too white (see abstract). Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use a scattering layer wherein the scattering bodies are minute particles to reduce scattering reflection.

Claims 40 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saurer in view of Washo in view of Piepel and further in view of Gyotoku et al US Patent No 6195142.

Regarding claims 40 and 52, Saurer, Washo and Piepel disclose all the limitations of claim 38 except, an the EL layer being organic. Gyotoku discloses an organic electroluminescent element excellent in long term durability and reliability (see abstract). Therefore, at the time of the invention it would have been obvious to one of ordinary skill in the art use an organic electroluminescent element for high reliability.

Conclusion

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562. The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu
Examiner
AU 2871

ANDREW SCHECHTER
PRIMARY EXAMINER